

Claims

1. A fuel metering unit for a fuel injection system for internal combustion engines with a high-pressure pump driven as a function of the engine speed, wherein the fuel metering unit has a control valve (11) that is actuated by an electromagnet (10) and has a valve piston (25), wherein the valve piston (25) is guided in a valve housing (22), wherein the valve piston (25) is embodied as sleeve-shaped and its inner chamber (26) contains a compression spring (27) that holds it in contact with the armature pin (14), and wherein the rear end of the compression spring (27) rests against a spring plate disposed in the valve bore (24) of the valve housing (22), wherein the wall of the valve housing (22) is provided with at least one, preferably several radial control openings (32) that are formed and/or disposed so that the fuel quantity flowing through the fuel metering unit can be adjusted as a function of the stroke of the valve piston (25), characterized in that the inner chamber (26) of the valve piston (25) contains a shutoff sleeve (51) and in that the valve piston (25) and the shutoff sleeve (51) constitute a shutoff device.
2. The fuel metering unit according to claim 1, characterized in that the shutoff device is embodied as a ball valve (52, 53).
3. The fuel metering unit according to claim 2, characterized in that a ball (52) is disposed between the shutoff sleeve (51) and the valve piston (25), and in that the shutoff sleeve (51) has a sealing seat (53).

4. The fuel metering unit according to one of claims 2 or 3, characterized in that the valve piston (25) has a ball retainer (54) and in that the ball retainer (54) holds the ball (52) in a definite position in relation to the valve piston (25).
5. The fuel metering unit according to one of the preceding claims, characterized in that one end of the compression spring (27) rests against the shutoff sleeve (51).
6. The fuel metering unit according to one of the preceding claims, characterized in that in the shutoff sleeve (51), an annular groove (29) or a guide collar is provided to contain the compression spring (27).
7. The fuel metering unit according to one of the preceding claims, characterized in that the control valve (11) can be adjusted by appropriately shifting the shutoff sleeve (51) axially in the valve bore (24) and then fixing it in place.